



| 5 <sup>th</sup> GRADE SCIENCE   |   |
|---|---|
| Cardinal Newman Standards: Catholic Identity Integration  |   |
| <ul style="list-style-type: none"> <li>• <b>CS.S.K6.GS2:</b> Describe the unity of faith and reason with confidence that there exists no contradiction between the God of nature and the God of faith.<br/>(<i>NGSS.5.PS1.1; PS1.3; PS2.1; PS3.1; LS1.1; LS2.1; ESS1.2; ESS2.1</i>)</li> <li>• <b>CS.S.K6.IS2:</b> Describe the relationships, elements, underlying order, harmony, and meaning in God’s creation.<br/>(<i>NGSS.5.PS1.1; PS1.2; PS1.3; PS2.1; PS3.1; LS1.1; LS2.1; ESS1.1; ESS1.2; ESS2.1; ESS2.2; ESS3.1; ETS1.1</i>)</li> <li>• <b>CS.S.K6.IS3:</b> Explain how creation is an outward sign of God’s love and goodness and, therefore, is “sacramental” in nature.<br/>(<i>NGSS.5.PS3.1; LS1.1; LS2.1; ESS2.1; ESS3.1</i>)</li> <li>• <b>CS.S.K6.IS5:</b> Explain the processes of conservation, preservation, overconsumption, and stewardship in relation to caring for that which God has given to sustain and delight us.<br/>(<i>NGSS.5.PS1.2; PS1.4; PS3.1; LS1.1; LS2.1; ESS2.1; ESS2.2; ESS3.1; ETS1.1; ETS1.2; ETS1.3</i>)</li> <li>• <b>CS.S.K6.DS4:</b> Accept that scientific knowledge is a call to serve and not simply a means to gain power, material prosperity, or success.<br/>(<i>NGSS.5.ESS3.1; ETS1.1; ETS1.2; ETS1.3</i>)</li> </ul> |   |
| Priority Skills   | Supporting Skills   |
| <ul style="list-style-type: none"> <li>• Make observations and measurements to identify materials based on their properties.</li> <li>• Conduct an investigation to determine whether the mixing of two or more substances results in new substances.</li> <li>• Use models to describe that energy in animals’ food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.</li> <li>• Support an argument that plants get the materials they need for growth chiefly from air and water.</li> <li>• Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</li> <li>• Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.</li> </ul>  | <ul style="list-style-type: none"> <li>• Understand and articulate that matter is made of particles that are too small to be seen without powerful equipment.</li> <li>• Understand the relationship between mass and weight and the differences between the two.</li> <li>• Recognize the effect of gravity on Earth and in the universe.</li> <li>• Articulate evidence of a water cycle, as well as understand that there are different types of water on Earth.</li> <li>• Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</li> <li>• Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</li> </ul> |



| Priority Skills   | Supporting Skills                 |
|---|-----------------------------------|
| <ul style="list-style-type: none"> <li>Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth, and use graphical displays to reveal patterns of daily changes and the seasonal appearance of some stars in the night sky.</li> <li>Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</li> </ul>  | <p><i>(see previous page)</i></p> |
| Essential Questions   |                                   |
| <ul style="list-style-type: none"> <li>How does matter cycle through ecosystems?</li> <li>Where does energy come from, and where does it go?</li> <li>What does it mean to be a steward of God's creation, and how can we perform such duties with consistency?</li> <li>What properties can I look for in order to define matter?</li> <li>What characteristics make a design worthwhile?</li> <li>Why does the night sky, as well as relative positions of stars and constellations, change over time?</li> </ul> |                                   |
| Vital Vocabulary  |                                   |
| <ul style="list-style-type: none"> <li>Atomic Scale, Atmosphere, Biosphere, Chemical (Reaction), Conductivity, Condense, Density, Dissolve, Ecosystem, Energy, Evaporate, Force, Gravitational, Geosphere, Hydrosphere, Matter, Mass, Mixture, Molecular, Organism, Pattern, Phase, Properties, Relative, Solution, Solubility, Stellar, System, Weight, Volume</li> </ul>  |                                   |

Additional Resources: [Cardinal Newman Science Resources, Appendix E](#)